



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,810	09/06/2006	Ahmad B. Dowlatabadi	AIV-1001	3400
54412 7590 07/26/2011 Law Offices of James E. Eakin P.O. Box 1250 Menlo Park, CA 94026				
EXAMINER LAXTON, GARY L.				
ART UNIT 2838		PAPER NUMBER		
NOTIFICATION DATE 07/26/2011		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jee@jeelaw.com  
cora@jeelaw.com

# Office Action Summary

**Application No.**

10/591,810

**Applicant(s)**

DOWLATABADI, AHMAD B.

**Examiner**

GARY L. LAXTON

**Art Unit**

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 16-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/25/2011; 4/22/2011; 4/9/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 2/24/2011 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 7,265,523 has been reviewed and is NOT accepted.

- a. The person who signed the terminal disclaimer is not recognized as an officer of the assignee, and he/she has not been established as being authorized to act on behalf of the assignee. See MPEP § 324.
2. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

### ***Claim Objections***

3. Claims 17 is objected to because of the following informalities: claim 17 recites "controller and and a PWM" [sic] in the last line of the claim.

Appropriate correction is required.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 16-23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 7,265,523 in view of Mukainakano et al. or Nork et al.

Claims 16, 17, 19, 20 and 22: U.S. 7,265,523 discloses a voltage regulator for use with switching power converters comprising a non-linear detection circuit (e.g. claim 1, line 38: e.g. a comparator; see claim 8 as well) having a reference voltage connected to a first input, and a signal representative of an output voltage connected to a second input (e.g. claim 1 lines 38-41; see claim 8 as well), and outputting a first logic signal if the first input is greater than the second input, and a second logic signal if the second input is greater than the first input (e.g. claim 1 lines 39-46; see claim 8 as well), a charge pump (e.g. claim 1 line 47; see claim 8 as well) responsive to the output of the detection circuit, a filter (e.g. claim 1 line 50; see claim 8 as well) connected to an output of the charge pump for linearizing the non-linear response (e.g. claim 8 line 36) of the detection circuit, and adapted to provide an output signal to a controller comprising at least one of a PWM or a PFM controller (e.g. claim 1 line 51-53; see claim 8 as well) to cause the voltage applied to a load to be substantially constant.

However, the claims of U.S. 7,265,523 are silent as to whether the first input to the detection circuit is adapted to be connected to the load through only an impedance.

Nork et al. and Mukainakano et al. both teach that it is widely known in the art to one of ordinary skill in the art to use an impedance to couple a detection circuit thereto from the load. The use of a resistive voltage divider to detect the output of a power supply is common place and well known as taught by Mukainakano et al. and Nork et al. The resistive divider circuit proportionally divides the output voltage and then the divided voltage is detected by a detection circuit. One advantage of using a resistive dividing circuit is to step the output voltage or current down to a level that is safe for the detection device.

Claims 18, 21 and 23; a voltage regulator for use with switching power converters comprising a non-linear detection circuit (claims 1 and 8) comprising a voltage comparator having a reference voltage connected to a first input, and a signal representative of an output voltage connected to a second input, and outputting a first logic signal if the first input is greater than the second input, and a second logic signal if the second input is greater than the first input (claims 1 and 8), a conversion circuit comprising a charge pump (claims 1 and 8) for continuously converting the output of the detection circuit to charge, and a filter connected to an output of the conversion circuit for linearizing an output of the conversion circuit and adapted to provide a smoothed signal to a driver circuit (claim 1: e.g. pwm/pfm).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GARY L. LAXTON whose telephone number is (571)272-2079. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Lewis can be reached on (571)272-1838. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GARY L LAXTON/  
Primary Examiner, Art Unit 2838

7/19/2011